

The Claims:

1. – 25. (Canceled)

26. (Previously Presented) A customer service device including a host machine for vending products, said host machine including a housing to secure the products to be vended, said host machine further comprising:

a coin dispenser contained in said housing;

a note acceptor-dispenser validator system contained in said housing and configured to receive and dispense notes in a first transaction, said note acceptor-dispenser validator system having a note validator that accepts authentic currency notes of any of a plurality of denominations, determines the denomination of each accepted note and generates a credit signal reflecting the denomination of the accepted note; and

a host processor contained in said housing, the host processor operative to determine whether a credit signal received from said note validator represents sufficient tender to pay for a selected product to be vended in the first transaction and, if sufficient credits have been received, cause the dispensing of the selected product, determine the difference between the amount represented by the credit signal and the cost of the vended product to determine the amount of change to be dispensed to complete the first transaction, and generate a dispense change instruction communicated to said note acceptor-dispenser validator system,

said note acceptor-dispenser validator system being further configured to receive said dispense change instruction from said host processor, and based upon the dispense change instruction, determine how the dispensing of notes by said note acceptor-dispenser and coins by said coin dispenser can be combined to dispense the appropriate amount of change as a combination of notes and coins based on the communication with said host processor, said note acceptor-dispenser validator system further including;

sensors within said note validator for sensing data relating to authenticity, denomination, type and condition of notes received by said note validator, said note validator generating signals corresponding to the sensed data for each received note;

a validator processor for receiving and comparing said sensed data signals with stored data to validate said notes;

a note box configured to receive and hold at least some notes accepted by said note validator;

a note hopper/change dispenser for receiving and storing up to a selected number of notes of a pre-selected denomination which are accepted by said note validator, the note hopper/change dispenser storing at least one note of the pre-selected denomination accepted in the first transaction for dispensing as change in a subsequent transaction; and

a transportation unit for transporting said notes past said sensors and for directing said notes determined to be authentic to one of said note box and said note hopper/change dispenser and for dispensing notes from said note hopper/change dispenser in response to an instruction from said validator processor.

27. (Previously Presented) A vending machine for the automated sale of non-monetary commercial products, said vending machine including a housing to secure the commercial products to be vended, a coin dispenser and a host processor to control the electronic and mechanical operation of the vending machine, said vending machine comprising:

a note acceptor-dispenser validator system for accepting currency notes of any of a plurality of characteristics and issuing credits to the host processor to allow the host processor to control the dispensing of a selected commercial product by said vending machine,

said note acceptor-dispenser validator system being electrically connected to said host processor to accept a dispense change instruction from said host processor and based upon the dispense change instruction, determine how the dispensing of notes by said note acceptor-dispenser and coins by said coin dispenser can be combined to dispense the appropriate amount of change as a combination of notes and coins based on the communication with said host processor, wherein said acceptor-dispenser validator system is mounted in said housing, and said note acceptor-dispenser validator system includes:

a note validator for receiving notes and sensing data identifying the type, denomination, and condition of the received notes;

a note box to hold at least notes other than pre-selected characteristic notes received by said note validator;

a note hopper/change dispenser to temporarily hold pre-selected characteristic notes received by said note validator, said notes being available to be subsequently dispensed by said note acceptor-dispenser validator system; and

a transportation unit for transporting received notes from said note validator to one of said note box and said note hopper/change dispenser and for transporting notes from said note hopper/change dispenser out through said note validator in response to an instruction.

28. (Canceled)

29. (Previously Presented) A vending machine for dispensing of non-monetary commercial products, the vending machine comprising:

a host machine for the dispensing of commercial products having a housing for enclosing and displaying the commercial products, said host machine including:

a coin dispenser;

a note acceptor-dispenser validator system mounted in said host machine for accepting currency notes and issuing credits signals; and

a host processor in said host machine operative to determine whether a credit signal received from said note acceptor-dispenser validator system represents sufficient tender to pay for a selected commercial product to be vended and, if sufficient credits have been received, cause the dispensing of the selected commercial product, determine the difference between the amount represented by the credit signal and the cost of the vended commercial product to determine the amount of change to be dispensed, and generate a dispense change instruction directed to said note acceptor-dispenser validator system,

said note acceptor-dispenser validator system being further configured to accept the dispense change instruction from said host processor and, based upon the dispense change instruction, determine how the dispensing of notes by said note acceptor-dispenser and coins by said coin dispenser can be combined to dispense the appropriate amount of change as a combination of notes and coins, wherein said note acceptor-dispenser validator system further comprises:

a note validator having an opening for receiving notes and a validator head for sensing data relating to the authenticity, denomination, and type of note received by said note validator, said note validator generating signals corresponding to the sensed data for each received note;

a validator processor for receiving and comparing said sensed data signals with stored data to validate said notes and generate a signal signifying receipt and the value of said note to said host processor;

a note box configured to receive and hold at least notes other than pre-selected characteristic notes that are validated by said note validator;

a note hopper/change dispenser for receiving and storing at least some pre-selected characteristic notes validated by said note validator; and

a transportation unit for directing validated notes to one of said note box and said note hopper/change dispenser depending upon whether the note is a pre-selected characteristic note, and for dispensing notes from said note hopper/change dispenser through said opening in said note validator in response to a dispense signal.

30. (Previously Presented) The vending machine for dispensing non-monetary product of claim 29, wherein said validator head determines the value of notes dispensed by said note acceptor-dispenser prior to their being dispensed.

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Previously Presented) A vending machine for dispensing non-monetary commercial products, the vending machine comprising:

a host machine having a housing for enclosing and displaying the commercial products, said host machine including a host processor, a coin dispenser and a location for a note validator;

a note acceptor-dispenser validator system disposed in the host machine in the location for the note validator, the note acceptor-dispenser validator system including a note validator for accepting currency notes and issuing credits to the host processor,

the host processor operative to determine whether a credit signal received from said validator represents sufficient tender to pay for a selected item to be vended and, if sufficient credits have been received, cause the dispensing of the selected commercial product, determine the difference between the amount represented by the credit signal and the cost of the vended item to determine the amount of change to be dispensed, and generate a dispense change instruction directed to said note acceptor-dispenser validator system,

said note acceptor-dispenser validator system configured to accept said dispense change instruction from said host processor and based upon the dispense change instruction, determine how the dispensing of notes by said note acceptor-dispenser and coins by said coin dispenser can be combined to dispense the appropriate amount of change as a combination of notes and coins, wherein said note acceptor-dispenser validator system further comprises:

an opening in said note validator for receiving notes and a validator head for scanning notes inserted into the opening and sensing data relating to the authenticity, denomination, and type of the inserted note, said note validator generating signals corresponding to the sensed data for each inserted note;

a validator processor for receiving and comparing said sensed data signal with stored data to validate said notes and generate a signal signifying receipt and the value of said note to said host processor;

a note box configured to receive and hold at least notes other than pre-selected characteristic notes validated by said validator processor;

a note hopper for receiving and storing pre-selected characteristic notes validated by said validator processor; and

a transportation unit for directing validated notes to one of said note box and said note hopper depending upon whether said validated notes are pre-selected characteristic notes, and for dispensing notes from said note hopper through said opening in said note validator in response to a dispense signal generated by said note acceptor-dispenser validator system.

35. (Previously Presented) The vending machine for dispensing non-monetary commercial product of claim 34, wherein said validator head determines the value of notes dispensed by said note acceptor-dispenser prior to their being dispensed.

36. (Previously Presented) The customer service device of claim 26, wherein the transportation unit directs authenticated notes to the note hopper/change dispenser depending upon a denomination of the authenticated note and a number of notes already within the note hopper/change dispenser.

37. (Previously Presented) The customer service device of claim 36, wherein the transportation unit directs authenticated notes of the pre-selected denomination to the note box once the note hopper/change dispenser contains the selected number of notes of the pre-selected denomination.

38. (Previously Presented) The vending machine of claim 27, wherein the pre-selected characteristic notes are at least one of a pre-selected type, a pre-selected denomination and a pre-selected condition, wherein the transportation unit directs received notes to the note hopper/change dispenser depending upon at least one of the type, denomination and condition of the received note.

39. (Previously Presented) The vending machine of claim 38, wherein the transportation unit directs received notes to the note hopper/change dispenser depending upon two or more of the type, denomination and condition of the received note.

40. (Previously Presented) The vending machine of claim 39, wherein the transportation unit directs received notes to the note hopper/change dispenser depending upon a number of notes already within the note hopper/change dispenser.

41. (Previously Presented) The vending machine of claim 39, wherein the transportation unit directs pre-selected characteristic notes to the note box once the note hopper/change dispenser contains a selected number of pre-selected characteristic notes.

42. (Previously Presented) The vending machine of claim 29, wherein the pre-selected characteristic notes are notes of a pre-selected type and denomination.

43. (Previously Presented) The vending machine of claim 42, wherein the transportation unit directs pre-selected characteristic notes to the note hopper/change dispenser until a selected maximum number of pre-selected characteristic notes are contained within the note hopper/change dispenser, and subsequently directs pre-selected characteristic notes to the note box.

44. (Previously Presented) The vending machine of claim 29, wherein the characteristics of the pre-selected characteristic notes may be changed.

45. (Previously Presented) The vending machine of claim 44, wherein changes to the characteristics of the pre-selected characteristic notes are precluded unless the note hopper is empty.

46. (Previously Presented) The vending machine of claim 34, wherein only notes of a pre-selected denomination are directed to the note hopper by the transportation unit, and only if a number of notes within the note hopper is less than a selected maximum number of notes.

47. (Previously Presented) The vending machine of claim 34, wherein the validator head senses notes dispensed from the note hopper to the opening, the validator head generating a signal indicating dispensing of the note and a denomination of the note dispensed.

48. (Previously Presented) The vending machine of claim 47, wherein the validator head prevents dispensing of a second note from the note hopper while a first note being dispensed from the note hopper is still within the opening.

49. (Previously Presented) The vending machine of claim 34, wherein a memory within the note acceptor-dispenser validator system maintains a running count of a number of

notes within the note hopper, incrementing the count when a pre-selected characteristic note is directed to the note hopper and decrementing the count when a note is dispensed from the note hopper.